

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of	)	
	)	
Alaska Communications Internet, LLC	)	ET Docket No. 18-282
	)	
Petition for Partial Waiver of Section 15.407(a)(3)	)	
of the Commission's Rules	)	
	)	
	)	

**COMMENTS OF RADWIN LTD.**

RADWIN LTD. (“RADWIN”) submits these comments in response to the Public Notice<sup>1/</sup> seeking input on the above-referenced petition that asks the Commission to waive Section 15.407(a)(3) of the rules to permit Alaska Communications Internet, LLC (“Alaska”) to use beamforming point-to-multipoint equipment in the 5.725-5.85 GHz (“U-NII-3”) band at a higher effective isotropic radiated power (“EIRP”) level than is otherwise permitted.<sup>2/</sup> RADWIN strongly supports the *Waiver Request*, which highlights the precise needs that RADWIN noted in its Petition for Rulemaking seeking modification of the rule for which Alaska seeks waiver.<sup>3/</sup>

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<sup>1/</sup> *Office of Engineering and Technology Seeks Comment on Alaska Communications Internet LLC's Request for Waiver of Section 15.407(a)(3) of the Rules for Unlicensed National Information Infrastructure Devices that Emit Multiple Directional Beams*, Public Notice, DA 18-972, ET Docket No. 18-282 (rel. Sept. 20, 2018).

<sup>2/</sup> *Petition for Partial Waiver of Alaska Communications Internet, LLC*, ET Docket No. 13-49 (filed Sept. 6, 2018) (“*Waiver Request*”).

<sup>3/</sup> *See Consumer & Governmental Affairs Bureau Reference Information Center Petition for Rulemakings Filed*, Public Notice, Report no. 3097 (rel. June 29, 2018); *In the Matter of RADWIN LTD, Amendment of Part 15 of the Commission's Rules to Advance Improved Broadband Services in the U-NII-1 and U-NII-3 Bands*, RM-11812 (filed June 18, 2018) (“*RADWIN Petition*”).

In the *RADWIN Petition* and related pleadings, RADWIN noted the benefits that wireless broadband providers, particularly in rural areas, would realize if the Commission modified the rules as it requested. The advanced systems that would be authorized by the modified rule would offer improved broadband connections at longer distances, to more homes and businesses, at lower costs, all while causing less interference.<sup>4/</sup> This would make it feasible for wireless Internet service providers (“WISPS”) like Alaska to serve large parts of the country that it is currently not economical to serve, and to improve service to existing customers, helping to close the digital divide.

The *Waiver Request* confirms exactly the need for the changes RADWIN requested. Alaska plans to utilize RADWIN’s point-to-multipoint system, implementing beamforming (using sequential transmissions) with higher EIRP to provide wireless broadband service in the rural area near Chena Hot Springs, Alaska and Ninilchick, Alaska, in furtherance of the Commission’s Connect America Fund goals.<sup>5/</sup> Alaska noted that it needs these advanced, longer-range point-to-multipoint systems in order to reach all unserved customers in these areas from existing towers (since constructing new towers is cost-prohibitive).<sup>6/</sup> Without the requested waiver, using the current EIRP limit, Alaska will only be able to cover 82% and 89% of Chena Hot Springs and Ninilchik, respectively; operating pursuant to the waiver, it would be able to cover 96% and 97%, respectively, and at lower cost and with improved speed and service

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<sup>4/</sup> *RADWIN Petition* at 8-11.

<sup>5/</sup> *Waiver Request* at 1, 5-8. RADWIN’s current point-to-multipoint equipment is only approved for use at the EIRP levels permitted in the rules. That equipment – consistent with FCC rules, cannot be modified to use the increased EIRP. Upon grant of the waiver, RADWIN will seek approval for the use of equipment that conforms to the relief provided.

<sup>6/</sup> *Waiver Request* at 5-6.

quality.<sup>7/</sup> This translates to hundreds of currently unserved households receiving broadband access, and more than a thousand seeing improved service.

While the Commission can provide long-term relief for others by amending its rules as RADWIN has requested, it can provide *immediate* relief to Alaska by granting the *Waiver Request*. As RADWIN has pointed out, the relief it requests – and that Alaska now requests – would use technology already available, on frequencies already allocated, to meet needs already recognized by the Commission.<sup>8/</sup> The needs that Alaska identify exist today, but so does the solution.

Because Alaska proposes to use RADWIN point-to-multipoint equipment with sequential transmissions, , RADWIN observes that the Commission may provide narrower relief than Alaska requests while still permitting Alaska to take advantage of the enhanced performance that point-to-multipoint equipment operated with higher EIRP can produce. The Petition mirrors RADWIN’s request by asking for permission to deploy antennas that transmit multiple beams *simultaneously* as well as *sequentially*.<sup>9/</sup> Nevertheless, RADWIN does not currently manufacture point-to-multipoint equipment with simultaneous transmission antennas. As it explained in its pleadings, it sought relief for simultaneous transmission devices only because current rules provide that capability in the 2.4 GHz band.<sup>10/</sup> RADWIN expects that the equipment that Alaska will use will feature only *sequential* antennas and the waiver need only

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<sup>7/</sup> *Waiver Request* at 5-6.

<sup>8/</sup> See RADWIN Petition at 6-11; Remarks of FCC Chairman Ajit Pai at the Farm Foundation/U.S. Department of Agriculture Summit, Apr. 18, 2018 (“On my first day as FCC Chairman in January 2017, I said that my number one priority was closing the digital divide and bringing the benefits of the Internet age to all Americans.”).

<sup>9/</sup> *Waiver Request* at 1.

<sup>10/</sup> *Reply of RADWIN LTD*, RM-11812 at 5-8 (filed August 14, 2018) (“RADWIN Reply”).

cover those devices. The Commission can therefore still more fully develop the record related to simultaneous transmissions – an admittedly more complicated issue -- in a Notice of Proposed Rulemaking in response to RADWIN’s petition.<sup>11/</sup> But there is no reason that the Commission cannot provide Alaska immediate relief related to the more straightforward component of RADWIN’s petition – the use of sequential transmissions in point-to-multipoint systems.

RADWIN therefore urges the Commission to grant Alaska’s waiver request, at least as to the use of sequential transmissions at point-to-point EIRP levels. By doing so, the Commission can further its important goals of connecting rural communities by allowing WISPs to deploy advanced technologies that provide higher quality, longer range connections for lower costs and with less interference.

Respectfully submitted,

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<sup>11/</sup> *RADWIN Reply* at 7-8 (recommending that the Commission issue an NPRM proposing rules for sequential transmission, and seeking comment on simultaneous transmissions.)

## **CERTIFICATE OF SERVICE**

I, Jonathan Markman, hereby certify that on October 22, 2018, copies of the foregoing

Comments were sent to the following:

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